

gardens. He imports much of his seed from China, and there is no doubt that the varieties of certain cruciferous, leguminous and salad plants which he grows—and they are numerous—would well repay the critical survey of seedsmen from Western countries. It would be fairly safe to prophecy that such a detailed examination would result in the discovery of additions to our present list of cultivated vegetables, which would be of great value to the plant breeder.

Efforts are now being made by the Department of Agriculture to persuade the Malays to emulate the example set by the Chinese. The latter seem

to have the trade for the supply of vegetables in bulk to the towns in their hands, but there is no reason why the Malay cultivator and the estates should not do more towards growing sufficient for their own requirements. The efforts that are being made in this direction are well described, and the drive is being stimulated by existing war-time conditions, which have resulted in a shortage of shipping and thus of imports.

The book is illustrated with photographs of the more typical vegetables and is well worthy of the study of all people interested in tropical gardening.

GEOFFREY EVANS.

THE NEW PHARMACOLOGY

The Pharmacological Basis of Therapeutics

A Textbook of Pharmacology, Toxicology and Therapeutics for Physicians and Medical Students. By Prof. Louis Goodman and Prof. Alfred Gilman. Pp. xiii+1383. (New York: The Macmillan Company, 1941.) 50s. net.

IN the past, most important pharmacological discoveries have been made in German universities and German commercial laboratories, but in recent years the work of American pharmacologists has been growing rapidly in importance. "The Pharmacological Basis of Therapeutics", by Profs. Goodman and Gilman of Yale, is a valuable review of this American work.

The authors must be warmly congratulated on this remarkable book. It is written from the clinical point of view; experiments on man are described more fully than experiments on animals, the results of which are given without detailed discussion, so that the book is a work of reference for the intelligent medical practitioner rather than an exposition of the methods which have led to such remarkable advances in pharmacology in recent years. In this respect the book resembles many recent text-books of pharmacology, which have tended to concentrate on the applications of the results to man. This tendency is in many ways a good one, but there is a danger that it may go too far, and that the student may never learn that pharmacology is a living experimental science, which has had great practical effects.

Most medical students will find this book too long, but it will be very valuable for teachers and experimentalists. It contains thousands of references to recent work, a large proportion of them to papers published in 1940. It opens with 100 pages on anaesthetics, and there are 180 pages on cholinergic and adrenergic nerves, more than 100

pages on sulphanilamide and related drugs, 88 pages on hormones and 60 pages on vitamins, with equally complete sections on other branches of pharmacology.

All this wealth of information is apt to have a humiliating effect on anyone who has tried to keep abreast of pharmacological literature, and to stimulate a search for omissions. The clue to success in such a search lies in the fact that the European literature has been less well covered than the American literature. For example, in the section dealing with emetin cathartics, it is stated that the time required for the drugs to traverse the small intestine, and the necessity for a chemical liberation of the active principle, delay the cathartic action, but there is no discussion of the work of Straub, which showed that delay in the small intestine played no part in the time of action of senna, which was not affected by tying the small intestine so that the drug could only act through the blood stream.

The release of histamine in anaphylaxis is dismissed as if it were a dubious speculation rather than a well-proved fact, while the release of histamine by the exposure of sensitive individuals to cold is thought to be established by the isolated observation that an acid gastric juice is secreted.

The section on sympathomimetic drugs contains no mention of perovitin (or methedrine) which has aroused interest in Great Britain because it has been said to have been used to increase the endurance of German parachute troops.

In spite of a few such omissions, the text as a whole is very full and up to date, and gives a very fair account of controversies still raging. It is the kind of work that might have been the fruit of the collaboration of a team of authors, and it is difficult to think how two men did it.

J. H. GADDUM.